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東京エムオウユウ事務局

## Safety Bulletin の掲載について

今般、東京MOUでは、加盟国当局がPSC検査の過程で明らかとなった安全阻害事象に関し、そのリスク及び取るべき対策等を関係者に注意喚起することにより海上安全の向上を図ることを目的として、Safety Bulletin を取りまとめ、英文ホームページに掲載することと致しました。

その第1号及び第2号として「Safety risk of lifting slings encased in plastic sheathing on freefall lifeboats (自由降下型救命艇の補助進水装置用ワイヤのプラスチック製覆いの安全リスク)」及び「Safety of pilots boarding on ships with pilot transfer arrangements that use non-approved methods to secure pilot ladders (承認されていない方法でパイロット・ラダーを固定した水先人乗下船設備を有する船舶に乗下船する水先人の安全)」についてそれぞれ Safety Bulletin 1/20 及び 2/20 としてホームページに掲載しましたので、お知らせします。

東京MOUでは、今後も随時、海上における安全を確保するため、Safety Bulletin を発行し、関係者への注意喚起を図っていくこととしています。

以上

(添付物)

Safety Bulletin 1/20 Safety risk of lifting slings encased in plastic sheathing on freefall lifeboats (英文)

Safety Bulletin 2/20 Safety of pilots boarding on ships with pilot transfer arrangements that use non-approved methods to secure pilot ladders (同)

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January 2020

## Safety risks of lifting slings encased in plastic sheathing on freefall lifeboats

This update is issued to raise awareness of the potential risk of using lifting slings encased in plastic sheathing for freefall lifeboats.

This safety update is for

- Ship owners and operators
- Surveyors and recognised organisations
- Maritime Administrations, their officers, investigators and technical advisors



Figure 1. Lifting sling encased in plastic sheathing

## Ships that use lifting slings encased in plastic sheathing for freefall lifeboats

**There is reason for concern with regard to lifting slings used for secondary means of launching free-fall lifeboats, which are encased in plastic sheathing.**

Such arrangements have been found to restrict visual inspection of the wire ropes enclosed within and furthermore, prevent routine maintenance and survey being effectively carried out. As a result, the wire ropes may be seriously corroded due to passage of moisture/air inside and yet go undetected.

Serious incidents have occurred during launching and retrieval of freefall lifeboats using the secondary means of launching and retrieval with purpose built lifting slings encased in plastic sheathing. The slings have parted resulting in the freefall lifeboat plunging several meters into the sea with crew inside.

Investigations into the failure of the slings revealed that the slings parted under normal operational load due to significant weakening, as a result of internal corrosion. The internal corrosion within the sheathing went undetected, even though regular inspections were reportedly being carried out, as required by SOLAS Chapter III, Regulation 20 (Operational readiness, maintenance and inspections).



Figure 2. Corrosion beneath plastic sheathing.

## Risk to safety

The presence of the plastic sheathing encasing the wire rope means that neither the crew nor the various surveyors tasked with inspecting the launching system can inspect and maintain the wire rope as required. by the International Maritime Organization Convention for the Safety of Life at Sea (SOLAS) and Res. MSC.402(96).

Furthermore, while it is a requirement under SOLAS Chapter III, Regulation 20.4 that falls used for launching of lifeboats are renewed when necessary if found deteriorated, or at intervals of not more than 5 years – there is no requirement in SOLAS for renewal of the slings used in secondary means of launching of freefall lifeboats. As such, many owners of vessels do not consider renewing the slings, as the true condition of the encased wire ropes cannot be correctly determined.



Figure 3. Lifting slings parted due to undetected corrosion.

## What you should do

1. Masters and senior officers should physically check if freefall lifeboat lifting slings are encased in plastic sheathing.
2. Masters, senior officers and surveyors should physically inspect the sling for signs of corrosion beneath the sheathing.
3. Companies should consider means to ensure the inspection of slings encased in plastic sheathing and the risks posed by them is appropriately captured by their safety management system.
4. Consideration should be given to the use of slings without a plastic sheath, or an alternative method of encasing the sheath which allows for removal for inspection. Operators may wish to contact the lifeboat manufacturer for guidance in this regard.
5. Companies should ensure that the slings are renewed on a regular basis, using the same principle of maintenance of lifeboat falls as stipulated in SOLAS Chapter III, Regulation 20.4.

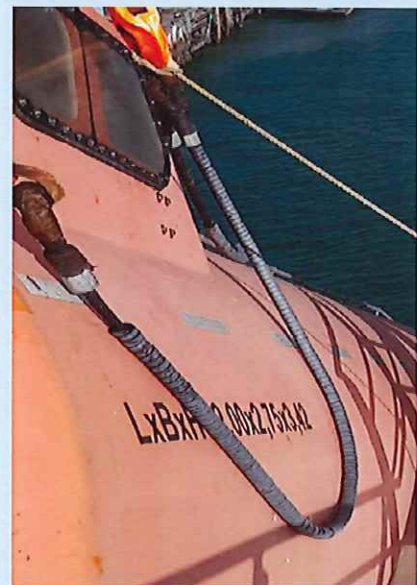


Figure 4. Alternative sheathing arrangement which allows for inspection

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January 2020

## Safety of pilots boarding ships with pilot transfer arrangements that use non-approved methods to secure pilot ladders

This update is issued to raise awareness of the potential risk of using improperly rigged pilot ladders.

This safety update is for

- Ship owners and operators
- Surveyors and recognised organisations
- Maritime Administrations, their officers, investigators and technical advisors



Figure 1. Pilot ladder incorrectly secured to the deck using D-shackles to choke the side ropes.

## Ships that use non-standard methods to shorten pilot ladders which are too long for the vessel's freeboard

**Persistent reports received from pilots and pilot associations indicate that vessels are improperly securing their pilot ladders to the ship.**

A large number of reports relate to the use of pilot ladders which are too long relative to the vessel's draughts. As a result the excessively long ladders require shortening up before being deployed for boarding pilots. In these cases, pilot ladders are shortened up by ship's staff using D-shackles to choke the side ropes at the required height along the ladder's length.

In this method, the D-shackle is first secured to a hard point on the deck, such as a pad eye, and the ladder rope threaded through the shackle. By shortening ladders using the D-shackle method causes the weight of the ladder to be taken up by the D-shackle impacting directly against the mechanical securing clamps (widgets) which secure the ladders treads in place.



Figure 2. Pilot ladder incorrectly secured to the deck using D-shackles to choke the side ropes.

## D-shackles used to shorten ladders

Requirements for pilot ladders are given in SOLAS V/23 (Pilot Transfer Arrangements) and related standards adopted by IMO (MSC.1/ Circ.1331) and ISO (ISO 799-1:2019).

SOLAS V/23.3.3.1 requires that pilot ladders be used for all situations wherein pilots are required to climb a height of between 1.5m to 9.0 metres.

SOLAS V/23 introduces mandatory design, construction and certification requirements.

## Risk to safety

Ladders constructed in compliance with the standards established by SOLAS V/23 and Res.A.1045 (27) will secure their treads in position using mechanical clamping devices (referred to as widgets), seized in place immediately above and below each tread.

Using D-shackles to choke pilot ladder side ropes can eventually damage these widgets and also destroys their seizing. When the seizing is destroyed, or the widget is damaged, this can lead to adjacent tread becoming loose

By taking the weight of the ladder onto the widgets causes the widget seizing to become damaged. This leads to the steps no longer being held firmly in the horizontal position. This in turn means that the steps can become free to rotate underfoot as the pilots climb the ladder.



Figure 3. This ladder is too long for the freeboard.



Figure 4. Pilot ladders are required to be provided at the rope ends with strong thimbles for securing the ladder.

## What you should do

1. Masters and senior officer should physically check the current method of securing their vessel's pilot ladders to ensure that crews are not making this rigging mistake.
2. Refer to the ship's construction drawings to ensure that the actual securing method is the same as the method given in the ship's drawings, or approved safety management system.
3. To avoid vessels being delayed in port, where existing pilot ladders are too long for the expected range of freeboards, Masters must find an appropriate safe method for securing the ladder at the rope-end thimbles. If the existing arrangement cannot be shortened correctly, then masters should consider contacting their local port agent to obtain a shorter ladder for use a required.
4. In summary, you cannot rig your ladder safely if it is too long for your vessel's freeboard.